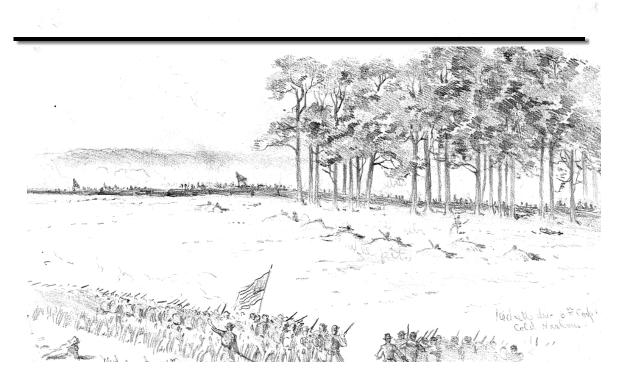
"And So the Murderous Work Went On" Pickett's Charge and Other Civil War Frontal Assaults

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"We shall be in one of the bloodiest civil wars that history has recorded," noted Alexander Stephens, vice president of the Confederacy, shortly after the firing on Fort Sumter in Charleston Bay, South Carolina. When the Confederate guns fired on the Union fortress at 4:30 in the morning of April 12, 1861, few Americans could imagine exactly how prophetic Stephens's words would become. Thousands of the sons of the South and the North eagerly rushed to join local companies, which were quickly being mustered into Confederate and Union regiments. Women frantically scrapped material together to make flags and cheerfully sent their men off to war believing their husbands, sons, and fathers would be home after one grand battle. Naiveté pervaded North and South. But the reality of war quickly set in.

The war's first battle, fought at Manassas, Virginia, on July 21, 1861, resulted in nearly 4,000 casualties and suggested to Northerners and Southerners alike that the war would not be short, or easily won.¹ Instead, the Civil War lasted four horrific years (April 12, 1861 to April 9, 1865) and brought destruction and carnage on a scale never before seen in America. When the sound of battle dissipated and the smoke lifted from the fields, the war's finality was appalling: More than 620,000 Americans had sacrificed their lives in the country's bloodiest war.²

As Northerners and Southerners struggled to reclaim their lives in the midst of the carnage, the emancipation of four million slaves, and the widespread destruction of the Southern landscape, Americans looked for meaning in the aftermath and explanations. Nearly 150 years removed from the

war, contemporary historians still seek to comprehend the enormity of the war. While disease claimed the lives of the majority of the war's dead, battlefield casualties inflicted significant loss of life as well. Places previously unknown, such as Shiloh, Antietam, Gettysburg, Cold Harbor, and Five Forks, gained recognition as soldiers of the Blue and Gray fought for supremacy on the field. Having received similar training at West Point and experience in the Mexican War (1846 – 1848), officers and commanders on both sides of the battlefield struggled to gain tactical advantage over their opponents.

The necessities of war brought widespread innovation, and examples of such innovation can be seen on the tactical level of the war's battles. For many, Pickett's Charge, the grand Confederate assault of July 3, 1863, at Gettysburg, had all the characteristics of the typical Civil War frontal assault: the prelude of a massive artillery barrage, followed by an infantry assault, and accompanied by a casualty rate of nearly 50 percent of the attacking force. While certainly one of the war's most memorable moments and considered by many the high-water mark of the Confederacy, Pickett's Charge was only one of many frontal assaults during the war. When studying Civil War assaults on a broader spectrum, putting Pickett's Charge in the context of other frontal assaults in both the Eastern and Western theaters, it appears that such grandiose linear assaults were more the exception than the rule in Civil War tactics.

Technology & Warfare

A common debate regarding Civil War battle tactics is whether the Civil War was the last Napoleonic war or the first modern war, and often this debate centers on the influence of the rifle. By the time of the American Civil War, technology had surpassed tactics. Soldiers in earlier wars, including the Mexican War (where most Civil War commanders gained their first combat experience), were armed with smoothbore muskets. The smoothbore rifle was easily loaded and fired, but was limited to an accurate range of little more than 100 yards.

In the 1840s, a French army captain named Claude E. Minié introduced the "Minié ball" and ushered in a new era of weapons technology. In order for a gun to obtain a greater firing distance, a bullet had to be developed that spiraled when fired, and continued to spiral through flight. Minié brought such advancement to small arms. When fired from the rifle, with its grooved barrel, this new bullet created the desired spiraling movement, which increased the gun's effective firing range to 400 yards.³ Within the next decade, the U.S. Army began to adopt the rifled musket.

After adopting the new rifled musket, equipped with the innovative Minié ball, American military commanders realized that some infantry tactics would have to adapt to the expanded firing range. Unfortunately, the only change in tactics that the army embraced was an increased step rate of advance. American military theorists and commanders failed to understand the full impact of the "Minié ball" and the fact that it had increased the range where formed infantry could receive accurate small arms fire. It would not be until nearly three years into the Civil War that commanders would begin to implement earnest efforts to adjust to this deadly technological innovation. The years between the Mexican War and the eve of the Civil War saw advances in weapons but correspondingly few advances in tactical theory or military manuals. Soldiers carried weapons with greater firing velocity and accuracy into battle, but commanders were slow to adapt to the consequences of the advanced firepower.

Yet historians debate the influence of the Minié ball and modern weaponry. For example, Paddy Griffith argues that the effects of the rifle are overstated. He claims that few rifles were issued in the early years of the war, and in fact it was not until midway through the conflict that the majority of soldiers were issued the modern (Springfield or Enfield) rifle. For example, by the time of the battle of Gettysburg in July 1863, approximately 70 percent of Union soldiers were equipped with the rifle. However, Edward Hagerman argues that the rifle did indeed usher in a new era of warfare, therefore making the Civil War the first modern war.⁵

The nature of warfare varied from battle to battle. After the battle of Gettysburg, Union and Confederate armies began to develop more elaborate systems of breastworks that characterized the 1864 Overland campaign. Why soldiers built such extensive fortifications during this campaign is also a matter of debate. Earl Hess disputes the cause-and-effect relationship between increasing use of the rifle and the

proliferation of fortifications. He opposes Hagerman's argument that the rifle led to the escalating use of fortifications, and instead argues that the influence of the rifle has been exaggerated. Dismissing the impact of the rifle, Hess suggests that continuous contact between the armies led to the development and evolution of fieldworks. To reinforce his conclusion, Hess found soldiers in the early part of the war tended to build fieldworks, not in preparation of battle, but after battle as a direct result of the "shock of combat."

What is certain is that tactics changed, or evolved, during the course of the American Civil War. Early and mid-war frontal assaults at Malvern Hill or Pickett's Charge in no way mirrored the assaults of the war's final years. Studying the contextual nature of tactics to gain a broader perspective on the July 3, 1863, assault on Cemetery Ridge shows that Pickett's Charge, and other grandiose, close-order formations, were more the exception than the rule.

Malvern Hill

In order to fully understand the assault on Cemetery Ridge on July 3, 1863, Gettysburg historians need to evaluate Lee's offensive at Malvern Hill, which occurred nearly one year earlier, on July 1, 1862, on the Virginia peninsula. The offensive at Malvern Hill was the culmination of General George McClellan's Peninsula campaign, the spring effort to capture the Confederate capital of Richmond, Virginia. Though McClellan's Army of the Potomac constituted the largest assembly of Union troops and material to date, McClellan frequently found his plans foiled by the new commander of the Army of Northern Virginia, General Robert E. Lee. As a result, the Union soldiers struggled to gain any significant hold on the "Road to Richmond." After significant loss of life at Gaines Mill on June 27, McClellan decided to withdraw from the Virginia peninsula. Eager to follow up on success at Gaines Mill, and particularly eager to destroy the wounded Union army, Lee pursued the Federal troops toward the James River. McClellan's final stand occurred on a small plateau, approximately one mile north of the James River, known as Malvern Hill. Though not an impressively significant "hill," being only 130 feet high and characterized by deep ravines, Malvern Hill offered the Union army open, sweeping fields for its artillery.

On the morning of June 30, Brigadier General Fitz John Porter's 5th Corps was among the first Federal troops to reach Malvern Hill. Immediately recognizing the value of the open terrain for artillery, Union artillery chief General Henry Hunt began to deploy his artillery with alacrity. Positioned on the crest of the hill, Hunt skillfully placed about thirty-seven guns to reinforce the nearly 18,000 Federal infantrymen. After solidifying the "higher ground," Union troops waited for the impending assault on the final day of the "Seven Days' campaign."

As the Federal forces strengthened their position along Malvern Hill, General Lee, believing the Union army was on the verge of collapse, devised a conventional linear Napoleonic assault foreshadowing the grand assault of Pickett's Charge nearly one year later. Characteristic of a Civil War offensive, the success of the assault depended on the accomplishments of the artillery bombardment. Throughout the morning of July 1, Lee and Lieutenant General James Longstreet reconnoitered the ground for the most advantageous placement of the Confederate artillery. Facing Malvern Hill, the generals found low, open ground which allowed the guns to be organized into two batteries, the left and right grand batteries, on the flanks of the Confederate position. These grand batteries were to deliver converging fire on the Federal position at Malvern Hill. Once the Confederate artillery successfully weakened the Union position, a massive linear formation comprising fourteen brigades from General Thomas "Stonewall" Jackson's and Major General John Magruder's commands were to attack.

At approximately 3 P.M. on July 1, 1862, the Confederate grand batteries opened fire on Malvern Hill. In an eerie parallel to what would occur one year later, the Confederate artillery was dreadfully ineffective. Though Jackson's unit committed ten batteries his guns were poorly handled and failed to inflict any significant damage on McClellan's line. Additionally, General William Nelson Pendleton's artillery reserve remained idle. In fact, only one of the fourteen reserve batteries participated in the bombardment. When questioned about his inactivity during the bombardment, Pendleton angrily replied

that he did not receive orders from headquarters to engage. As a result of the failure of the left grand battery and the silence of the artillery reserves, the Confederates never had more than eight guns in action at any one time during the barrage.⁸

Within a short time it was evident that the Confederate bombardment was not weakening the Union position on Malvern Hill. Doubting the effectiveness of a frontal assault on the strong Union position, Lee conferred with his generals to devise an alternative plan. Displaying a moment of flexibility, General Lee decided to abandon the plan to assault the Union center and committed his forces to assault the Union left, where he believed he would gain more success. Within moments of the changing his plan, two pieces of information arrived at headquarters that led Lee to abandon the revised plan and proceed with the original assault on Malvern Hill. First, Lee learned that John Magruder's unit, which had mistakenly been directed on the wrong road, had finally arrived on the field. Second, Lee heard reports that Brigadier General Lewis Armistead's Virginians were advancing with success toward the Union position on Malvern Hill. As it turned out, the information regarding Armistead's brigade was only partially true. The 14th, 38th, and 53rd Virginia were ordered forward to confront Union skirmishers, and though they were successful in driving back the skirmishers in the face of deadly fire, they were forced to take shelter in a shallow ravine/swale, thereby disconnected from their main battle line.

At nearly 4 P.M. Magruder arrived and was immediately ordered to take position on the extreme right flank of the Confederate line. Just as Magruder began to deploy his men into a line of battle, he received a hurried order that, "General Lee expects you to advance rapidly. He says it is reported the enemy is getting off. Press forward your whole line and follow up Armistead's successes." Near 5:30 on July 1, 1862, Magruder's men, numbering near 5,000, advanced toward the well-defended Union position. Moving in to support Magruder were General D. H. Hill's men, numbering nearly 8,200.

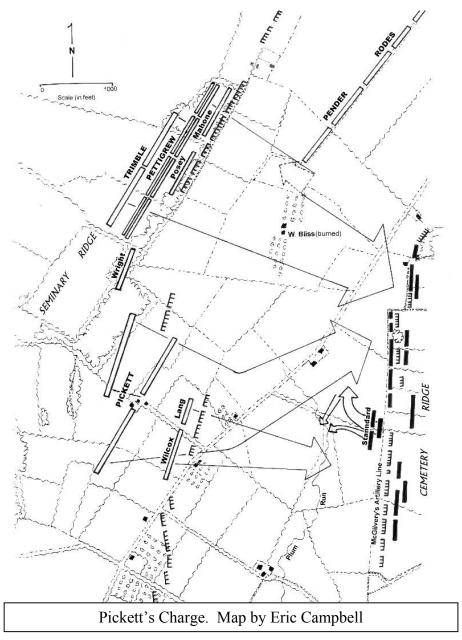
Once the Confederate infantry appeared in view, the Union artillery wasted no time in pouring a withering fire into the advancing Confederates' close-order formations. Equipped with sufficient amounts of ammunition, the well-trained Union gunners dominated the fields of Malvern Hill. Within sixty minutes the assault was over. What Lee envisioned being the deathblow to McClellan's retreating army resulted in devastating casualties for the Army of Northern Virginia. The Confederates suffered more than 5,650 casualties: 869 killed and 4,241 wounded. The 3rd Alabama suffered the highest casualty rate of any unit on the field: 37 dead and 163 wounded, a devastating 56 percent. By virtue of their superior position and domineering artillery, Union losses numbered significantly less: 3,007. Though the Confederate attack was utterly repulsed, the ever-cautious McClellan still withdrew his army from the field. The battle's carnage shocked even the most battle-hardened of soldiers, as D. H. Hill famously observed, "It was not war – it was murder."

Pickett's Charge

Examining frontal assaults on a continuum, or in the broader context of Civil War battles, allows historians to see advancements, or sometimes regressions, in tactics, plans, and leadership. Amateur and professional scholars have readily fed America's insatiable appetite for books and articles on Gettysburg, and in particular, on Pickett's Charge. Yet interestingly, if not unfortunately, most of these works neglect to address Lee's failed assault at Malvern Hill. What lessons, if any, did the Confederate leadership learn from this battle.

Understanding that there was "nothing to be gained by this army remaining quietly on the defensive," on June 3, 1863 Lee began to move the Army of the Northern Virginia from its position along the Rappahannock River in the preliminary movements of what would be the Gettysburg Campaign. ¹¹ Morale in the ranks of the Southern army was extremely high, and rightfully so. Within the past year, Lee's army had won significant victories at Second Manassas, Fredericksburg, and Chancellorsville. Lee himself referred to his soldiers as "invincible," and the same belief of superiority pervaded the ranks of the common soldiers. Having supreme faith in their cause and commander, Lee's men believed they could accomplish anything.

In the campaign's climatic battle at Gettysburg, which ironically began on the anniversary of Malvern Hill, Lee smashed Union forces on July 1, but then failed to dislodge them in a major assault on July 2. George G. Meade's Army of the Potomac held the high ground south of Gettysburg; Culp's Hill, Cemetery Hill, Cemetery Ridge and Little Round Top. It was a formidable position yet as he did at Malvern Hill, General Lee believed the Union army was on the verge of collapse. Though the fighting on July 1 and 2 had not brought Lee's army the decisive victory it sought, the Confederates had inflicted significant casualties on the Union army's 1st, 3rd, 5th, and 11th corps. Estimating that one grand final attack would destroy Meade's army, the Confederate leadership began preparations for the largest frontal assault of the Civil War.



Despite the fact that Pickett's Charge was not Lee's original plan for battle, he came to believe that the Union center, along Cemetery Ridge, was the weakest point in Meade's line. Having attacked the Union flanks at Little Round Top and Culp's Hill/Cemetery Hill with little success on July 2, Lee assumed that

the Union center offered the best chance of success. Lee's belief that the center of the Union line was its most vulnerable point was further solidified by limited, but important, success gained by Brigadier General Ambrose Wright on the evening of July 2. Wright's Georgians breached the Union center on Seminary Ridge but because of a lack of supports, Wright was unable to hold on to ground his men had gained. Wright later noted, "The trouble is not in going there [center of the Union line]. The trouble is to stay there after you get there, for the whole Yankee army is there in a bunch." While the distance from Seminary Ridge to the point of attack was one mile, the field to be crossed was not as open as historians have previously believed, for a series of swales in the field served as natural cover and concealment that provided the Confederates with limited protection during their advance. These swales allowed the Confederates to momentarily stop to redress their ranks, without being directly subjected to fire from the Union soldiers.

The plan for Pickett's Charge mirrored the Confederate offensive at Malvern Hill in many respects. Lee intended for the artillery, like the "grand batteries" at Malvern Hill, to severely weaken the Union defensive position. Approximately 160 guns were strategically placed along Seminary Ridge to silence the Federal guns, inflict as many casualties possible, and create chaos along the Federal line. Once accomplished, the infantry would advance and split the Federal center. In his official report written in January 1864, Lee wrote of the expected role of the Confederate artillery, stating, "A careful examination was made of the ground secured by Longstreet, and his batteries placed in positions, which it was believed, would enable them to silence those of the enemy." Once the infantry stepped off, "The batteries were directed to be pushed forward as the infantry progressed, protect their flanks, and support their attack." The second part of Lee's plan was the infantry assault. Approximately 12,500 soldiers from the divisions of Major General George E. Pickett, Brigadier General James J Pettigrew, and Major General Isaac R. Trimble were ordered to make the assault.

Along with the roles of the artillery and infantry, Lee also integrated the cavalry into his plan. ¹⁶ Lee ordered Stuart to protect the left of the Confederate line, by riding three miles east of Gettysburg, to position himself in order to exploit any prospects gained from the infantry assault. ¹⁷ This intended cavalry support is reflected in Stuart's official report, in which he stated, "I moved this command…and hoped to affect a surprise upon the enemy's rear."

At 1 P.M. General Longstreet ordered Colonel E.P. Alexander "Let the batteries open," and along Seminary Ridge and the Emmitsburg road approximately 160 Confederate guns opened fire. Within minutes about eighty Union guns returned fire. At approximately 3 P.M. the cannonade ceased, and 12,500 Confederates advanced toward Cemetery Ridge. Within fifteen minutes the Confederates reached the Emmitsburg road, where they redressed their ranks before continuing toward the Angle at the Union center. Once across the road and nearing the Union center, the Confederates faced devastating short-range artillery (canister) and rifle fire that cut great swaths in the advancing line. As the Confederates finally reached the Angle, point blank combat ensued. In less than one hour the charge was over, with appalling losses of more than 5,600 men, nearly one half of the attacking Confederate force.

Nothing Lee planned came to fruition. The implementation of the artillery bombardment, the infantry charge, and the supporting cavalry attack, all resulted in failure. On the surface it looked as though the Confederate high command had learned nothing from the debacle at Malvern Hill. Confederate batteries consistently overshot their mark and within thirty minutes were desperately low on ammunition. As a result of diminishing ammunition supplies and damage sustained from the Union artillery, the Confederate gunners were unable to render any effective support to the advancing infantry. Of the 12,500 Confederates earmarked for the offensive, most consistent estimates show that perhaps only 300 to 400 Rebels pierced the Union line at Cemetery Ridge. The majority of their comrades were killed or maimed crossing the fields to the Union center, or were driven back before reaching the Union position.

Lee took the blame for the failed assault. In a July 31, 1863, letter sent to Jefferson Davis, Lee stated, "No blame can be attached to the army for its failure to accomplish what was projected by me, nor should it be censured for the unreasonable expectations of the public – I am alone to blame, in perhaps expecting too much of its prowess and valour." So distraught was Lee over the loss at Gettysburg, he offered Jefferson Davis his resignation. It was denied.

Pickett's Charge was indeed the High Water Mark of the Confederacy. The assault on July 3 was also the High Water Mark of close-order, linear-style assaults. Subsequent offensives, as seen in the 1864 Overland campaign, broke with traditional tactics as commanders looked for alternative ways to assault and break the enemy line. However, by this time the focal point of the attack was not across a relatively open position like Malvern Hill or Cemetery Ridge, but against well-fortified, entrenched positions. The face of battle in the Eastern theater was about to change.

Spotsylvania: the Mule Shoe, May 10 & 12, 1864

Pickett's Charge was the last of the grand Napoleonic-style frontal assaults in the eastern theater of the war. Lee's staggering losses demonstrated that tight, shoulder-to-shoulder formations were unsuccessful in piercing well-defended enemy lines. In the spring of 1864, the Army of the Potomac and the Army of Northern Virginia embarked on the deadliest campaign of the Civil War. The Overland campaign took the armies through the heartland of Virginia and pitted General Lee against Lieutenant General Ulysses S. Grant. Overwhelming casualties and trench warfare characterized the Overland campaign. The construction of extensive and strongly built fortifications, or entrenchments, forced a decisive change in offensive tactics. The linear massive line characterized by Lee's frontal assaults at Malvern Hill and Gettysburg would be suicidal in the face of these newly fortified positions. The ensuing frontal offensives during the Overland campaign sought to bring innovation to tactics in an effort to break the entrenchments.²²

Fitting into this new style of warfare was Lieutenant General Ulysses S. Grant. While Meade nominally retained command of the Army of the Potomac, Grant became the Union army's overall commander responsible for all strategic operations. Differing from earlier Union commanders, Grant resolved to destroy Lee's army. Unwilling to retreat or even halt, Grant launched a relentless campaign

through Virginia's heartland, strategically maneuvering to gain any advantage on Lee's army, which struggled to stay alive.

One of the more deadly engagements in the Overland campaign was the Battle of Spotsylvania Court House, where a new style of warfare was tested. Here, Union forces launched two frontal assaults, on May 10 and 12, which represented a significant deviation from earlier assaults and ushered in a new phase in tactical evolution. Despite the fact that the two Union assaults did not succeed in capturing the Confederate position, the assaults demonstrated that Civil War commanders' tactical thinking was not stagnant, but that they recognized the futility of Napoleonic assaults.

The May 10 assault was marked by a tactical deviation from the traditional advance in line. Instead, the Union assault force advanced in column. The idea to use a column formation rather than a line came not from General Grant, but from a subordinate, Colonel Emory Upton. Upton, an 1861 graduate of the U.S. Military Academy at West Point, had experienced combat for three years, and come to the conclusion that the Napoleonic military tactics taught at West Point



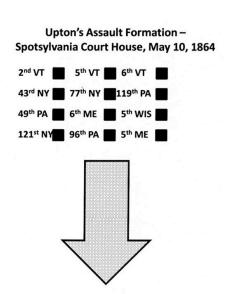
Emory Upton after his promotion to brigadier general. LC

were obsolete and could not achieve decisive success on the battlefield. At Rappahannock Station on November 7, 1863, Upton witnessed a column assault, moving at the double quick, where Union infantry

successfully captured the Confederate position with relatively light losses.²³ Using this experience, Upton devised an innovative plan to break the Confederate entrenchments at Spotsylvania.

Upton's plan for the assault at Spotsylvania deviated from attacks such as Malvern Hill and Pickett's Charge in several ways. The standard Civil War infantry deployment was a linear formation, which had width, but not depth, such as the Confederates had utilized during Pickett's Charge. An alternative to the linear formation was the column, a narrow, but deep, formation. If implemented and executed properly, the column formation had several significant advantages over the two-rank formation linear formation. For example, attacking in column allowed the attacking force to maximize its strength at a specific and narrow point on the enemy's front. Furthermore, because the attackers were configured in a narrow formation, they offered a smaller target to rifle and cannon fire from the defending troops. A disadvantage of the column-style assault was that because the attackers formed a much narrower front, their firepower was proportionally decreased. To compensate for decreased firepower troops relied upon speed to successfully breach and overcome the enemy's position. In previous assaults, including Pickett's Charge, attacking soldiers advanced at common time, ninety steps per minute, in order to preserve their energy for the actual engagement. It was not until the final 100 yards in Pickett's Charge that orders were given to rapidly advance toward the Union position. Comparatively, in the column-style assault at Spotsylvania, Union troops, positioned closer to the focal point of the assault, advanced at a much quicker pace.

Column-style assaults also differ from linear assaults in that they concentrate on a specific point in the enemy's line. Whereas the focal point of Pickett's Charge was a front 400 yards in width, the designated point of attack for Upton's assault was a considerably narrower front, perhaps 100 yards wide. This narrower front allowed Upton to concentrate his troops and breach the enemy line. The part of the



Confederate lines where Upton attacked was in the approximate shape of an arch, which later was termed the Mule Shoe. The western front of the Confederate position was held by Brigadier General George Dole's Georgia Brigade. The line jutted out slightly here to form a small salient, which was later termed "Dole's Salient." This obtrusion from the main Confederate line became the focal point of the Upton's assault for it could be attacked from multiple directions.

Possibly because his previous assaults in the Overland campaign had yielded no decisive victory, Grant approved Upton's idea for a frontal assault. The assault force was comprised of twelve regiments, totaling near 5,000 men, all drawn from Brigadier General Horatio Wright's 6th Corps.²⁷ Upton, placed in immediate command, carefully planned the role that his regiments would play by organizing them in a narrow and compact formation. The twelve regiments were formed into four lines, each line with a specific duty once the

attack began. The first line consisted of the 5th Maine, 121st New York, and 96th Pennsylvania. The 5th Maine was ordered to "open an enfilading fire upon the enemy," while the other regiments were to "charge the battery" as soon as the 5th had carried the works. ²⁸ Upton realized that the first line to breach the Confederate lines would most likely suffer heavy loses, but its sacrifice would allow the following lines to exploit the breach that it created. The next, or second, line consisted of the 49th Pennsylvania, 6th Maine, and 5th Wisconsin. The third line consisted of the 43rd New York, 77th New York, and 119th Pennsylvania. The last line was formed by soldiers from the 2nd, 5th, and 6th Vermont. Upton's official report detailed the roles of the lines: "The second line was to halt at the works, and open fire to the front if

necessary. The third line was to lie down behind the second, and await orders. The fourth line was to advance to the edge of the wood, lie down, and await the issue of charge."²⁹ Clearly Upton envisioned his men crossing over the entrenchments in an organized, controlled formation, similar to ocean waves, one after the other, until the Confederate line was exploited. Given that Upton's assaulting force numbered 5,000, reinforcements would be critical for maintaining and exploiting the breakthrough. Brigadier General Gershom Mott's 2nd Division (Hancock's corps), consisting of approximately 1,500 soldiers, was assigned the task of reinforcing and supporting Upton's left flank. Unfortunately, the exact role and positioning of Mott's men was not clearly defined prior to the assault.³¹

Inefficiency and poor communication defined the day for the Army of the Potomac. Union commanders failed to coordinate the time of their attacks, which in turn failed to produce a massive and unified assault. General Wright ordered Mott to attack at 5 P.M. Upton's assault, however, was postponed until 6 P.M., one hour later than the initial start time. Unfortunately, Mott was never informed of this change and as ordered, he attacked at 5 P.M. Because the main Union assault had not yet started, there was nothing for Mott's men to exploit, and his attack was easily repulsed.³³

Near 6:30 P.M. Upton's column assault began. For approximately one hour, Union and Confederate forces engaged in desperate fighting at the salient. Initially, the Union forces held the advantage, as "numbers prevailed, and, like a resistless wave, the column poured over the works." General Ewell was able to organize counterattacks and successfully sealed off the breach in the Confederate line that the Union assault had created. Upton, unaware that Mott had already attacked and retreated, requested reinforcements, only to find that there were none. As dusk approached and with no reinforcements forthcoming, Upton requested permission to withdraw. It was granted. In his after-action report, Upton estimated his losses at 1,000 casualties, but he reportedly captured between 1,000 and 1,200 Confederate prisoners. Confederate prisoners.

Upton's assault should be analyzed on two separate and distinct levels. On one level, the attack on May 10 was a success, for it changed the frontal assault tactics for the remainder of the war. Subsequent frontal assaults, in both the Eastern and Western theater, would be comprised of narrow formations that concentrated on a narrow point. In recognition of Upton's brilliant innovation, Grant immediately promoted him to brigadier general. But on another level, however innovative and brilliant Upton's planned assault was, the attack failed because of ineffective Union leadership and poor communication and coordination.

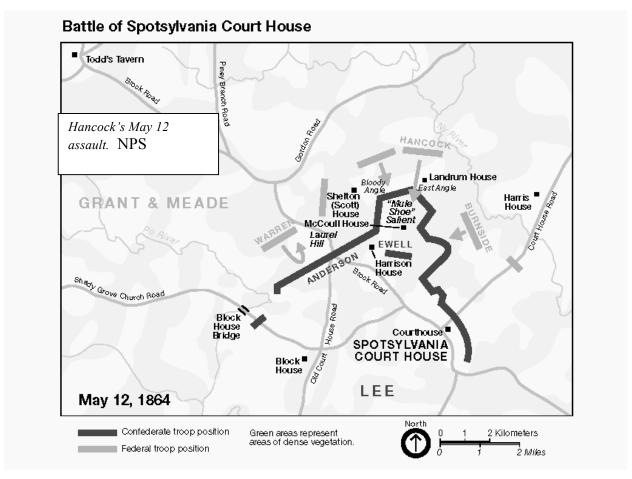
General Winfield Scott Hancock's Assault, May 12, 1864

While Upton's assault was a tactical failure, the attack served as precedent to subsequent frontal assaults. As rain on May 11 left operations at a standstill, the Union high command evaluated the lessons from Upton's assault. Upton commanded a relatively small attacking force, approximately 5,000 soldiers. Would a similar frontal assault on a narrow front by a larger force succeed? The apparent lesson learned from May 10 was that column assaults would offer success, but the key to victory would be the concentration of not 5,000 men, but an entire corps of 20,000 men. Accordingly, Grant began planning a massive frontal assault, which would duplicate Upton's attack, only this time be better planned and coordinated.

On the afternoon of May 11, General Winfield S. Hancock received orders to make preparations to attack the following morning. Grant remained convinced that the Mule Shoe was the weak point in Lee's line and ordered Hancock to mass his forces in preparation for another assault there. The plan for May 12 was relatively simple: a massed, but compact, column attack at the salient. As with Upton's assault, Hancock would have to overcome Confederate entrenchments and breastworks, but Grant believed that superior numbers could break the enemy line.³⁷ Hancock massed four divisions, numbering close to 20,000 – four times the size in Upton's attack – for the assault.³⁸ Under the cover of darkness and fog, Hancock prepared a surprise attack on the following morning.³⁹ Miserable weather conditions prevented Hancock from accurately reconnoitering the route his men were to cross. The distance from the Union lines to the Confederate position was no more than 1,500 yards.⁴⁰ As with Upton's assault, Hancock's

men were ordered to move quickly across the field, which would enable them to maintain momentum and lessen their vulnerability to enemy fire.

Union commanders originally planned for the assault to begin at 4 A.M., but as the inclement weather lingered, the attack was delayed. At 3:35 A.M., Hancock reported, "My troops are nearly formed. As it is misty I think I shall wait until it is a little more clear, by which time my troops will be formed." At 4:35 A.M., after a thirty-minute delay, Hancock ordered his men forward. Since Hancock had massed his large corps the previous evening without being detected, the Confederates were taken by surprise the following morning. Without stopping to fire a shot, his forces quickly reached the breastworks and easily broke through the Confederate lines, creating a gap nearly one-half mile long. Grant recollected that, "The troops pushed on in quick time without firing a gun, and when within four or five hundred yards of the enemy's line broke out in loud cheers, and within a rush went up and over the breastworks. Prigadier General John Gordon described the scene of the advancing Union soldiers: "Through that wide breach in the Confederate lines, which was becoming wider with every step, the Union forces were rushing like a swollen torrent through a broken mill-dam."



Hancock initially reported great success to Meade. Federal troops captured two Confederate generals, Major General Edward Johnson and Brigadier General George Steuart, plus twenty Confederate artillery pieces. The Confederates in the direct path of Hancock's advancing mass found their weapons largely inoperable due to the damp weather so the Confederates turned their rifles on end and began using them as clubs: "the men of the two sides were too close together to fire, but used their guns as clubs." A Union soldier recalled of the desperate hand-to-hand fighting, "Skulls were crushed with clubbed muskets, and men stabbed to death with swords and bayonets."

Initial success, however, was soon followed by chaos. As Union troops rapidly surmounted the Confederate breastworks, their column formations became non-existent; all order had dissipated. Hancock reported, "My troops are in great disorder, but I am working hard and will soon have them under organization." Horace Potter, a Union soldier, remembered, "Fresh troops rushed madly forward to replace the dead, and so the murderous work went on." The weather only complicated the chaos, as the fog prevented a clear view of the scene.

The attack now reached a critical moment. Hancock's assault had nearly split Lee's Army of Northern Virginia in half; victory was within Union grasp. General Lee, who was observing the assault from behind Confederate lines, realized how desperate the situation had become, and as he saw the gap in the Confederate lines widening rode to the front of the entrenchments to fill the gap himself. Gordon later remembered the scene of a near-desperate man trying to save his army and country:

Lee resolved to save it, and, if need be, to save it at the sacrifice of his own life. With perfect self-poise, he rode to the margin of that breach...calmly and grandly, he rode to a point near the centre of my line and turned his horse's head to the front, evidently resolved to lead in person the desperate charge and drive Hancock back or perish in the effort.⁵²

Another Confederate solider recalled this famous scene; "The General's countenance showed that he had despaired and was ready to die rather than see the defeat of his army." ⁵³

Only Brigadier General John Gordon's small line of Georgians connected Lee's two wings. Prior to the morning assault, Gordon's three regiments had been moved from the front line to the rear of the salient, and were ordered to "move quickly, without waiting for orders, to the support of any point that might be assaulted, and to restore, if possible, any breach that might be made." While Gordon's men were assigned a nearly impossible role, they accomplished the task by stopping Hancock's advance through a series of piecemeal counterattacks.

Unable to coordinate reinforcements, Hancock's offensive at the Mule Shoe reached a stalemate by early evening. While the initial Union breakthrough created a gap in the Confederate lines nearly one-half mile long, Confederate counterattacks reduced this to only a few hundred yards. The fighting at the Mule Shoe, which had started at 4:30 A.M., lasted, "until 10 P.M. without a moment's intermission." Confederate and Union soldiers engaged in hand-to-hand combat, neither side willing to retreat or retire, for nearly eighteen hours. While the Confederates at the Mule Shoe fiercely held off Union forces, Lee ordered a series of entrenchments to be built behind the salient, and at approximately 3 A.M., nearly twenty-three hours after the attack began, Confederate forces fell back to their new entrenchments. Their withdrawal to this new position, some 1,300 yards behind the Mule Shoe, was unopposed by Union forces.

The spot at which Hancock's men fiercely engaged the Confederate forces was later termed the "Bloody Angle," representative of the carnage and death that took place on May 12, 1864. Total casualties for both armies neared 17,000, making the fighting at the Mule Shoe among the fiercest and deadliest of the entire war. Grant's Army of the Potomac lost approximately 9,000 men, while Lee's Army of Northern Virginia suffered nearly 8,000 lost, including almost 3,000 captured. Hancock's 2nd Corps alone reportedly lost 2,537 men. ⁵⁹

Tactically the assaults on May 10 and May 12 demonstrated significant evolution from the linear, close-order formations of Malvern Hill and Pickett's Charge. Though inefficiency and poor coordination plagued the Union army and both assaults proved to be unsuccessful, the events at the Mule Shoe illustrate a distinct break from Napoleonic-style assaults and a recognition that frontal assaults had to adapt to the changing nature of war. Attacking a heavily fortified position in the former linear formation, shoulder to shoulder, would have resulted in even more catastrophic bloodshed. Grant, promising that he would "take no backward steps," continued to march through Virginia, determined to bring Lee's army to defeat ⁶⁰

Through late May and early June, Lee and Grant continued to engage in a series of maneuvers and counter-maneuvers north of Richmond. On June 12 Grant withdrew the Army of the Potomac (totaling approximately 110,000 men) from the bloodstained fields of Cold Harbor and quickly marched it toward Petersburg. Five days later Lee's intelligence confirmed that Grant was moving toward Petersburg, and his Army of Northern Virginia (totaling approximately 64,000 soldiers) quickly moved to defend the vital city. Strategically situated twenty-two miles south of Richmond, Petersburg was also an artery for transportation, with junctions for roadways, railroads, and waterways. General P.G.T. Beauregard's command of 2,500 protected the city from behind an elaborate system of entrenchments.

On June 15 lead elements of the Army of the Potomac reached the northeast edge of Petersburg. Intimidated by the trenches, which in some places were twenty-two feet thick, the lead corps held its position and waited for reinforcements. With memories of the slaughter at Cold Harbor fresh in their minds, the Union troops made several half-hearted thrusts at the Confederate position before June 19, when Grant had them settle in for a siege of Petersburg. The soldiers quickly devised their own trench system paralleling the established Confederate lines.

In some places the two opposing armies were positioned less than 100 yards apart.⁶⁷ As at Spotsylvania, part of the Confederate line formed a salient.⁶⁸ Elliot's Salient, as it became known, was approximately one third of a mile long and was protected by Captain Richard Pegram's four-gun battery.⁶⁹ Major General Robert Hoke's men held the salient on the right of the Confederate line; Major General Bushrod Johnson's men were in possession of the face of the salient, while Brigadier General William Mahone's men occupied the western portion of the line.⁷⁰

Boredom with siege life brought innovation. In 1864, Colonel Henry Pleasants, commander of the 48th Pennsylvania Regiment, was thirty-one years old. ⁷¹ Prior to enlisting in the Union army, Pleasants had enjoyed a successful career as a mining engineer in Schuylkill County, Pennsylvania, and many of the men in his regiment had worked as miners there. In the midst of the tedium of the Petersburg siege, one of Pleasants' soldiers, referring to a Confederate fort that stood opposite Union lines, nonchalantly stated, "We could blow that damn fort out of existence if we could run a mine shaft under it." Within a few days the musings of a frustrated Union soldier would become a critical part of the Union army's offensive plan. Pleasants agreed with his soldier's idea and pitched a plan to his commander, Brigadier General Robert B. Potter, to have the 48th dig a mine shaft under the Confederate fort in two to three weeks, pack an underground chamber with explosives and blow the fort up, creating a gap in the Confederate works that infantry could then exploit. ⁷³ Potter approved the plan and carried it to Major General Ambrose E. Burnside, commander of the 9th Corps, on June 24. ⁷⁴ Burnside gave the plan his full consideration. Believing it could work, he proposed it to General Meade and Major James Duane, Meade's chief engineer.

Perhaps of Burnside's competency, after his lackluster performance in the 1864 campaign, neither Meade nor Duane gave the plan serious consideration. In a letter to Grant, Meade admitted his skepticism toward Burnside's plan: "The springing of Burnside's mine and subsequent assault is the most practical, and I am not prepared to say the attempt would be hopeless. I am, however, of the opinion, so far as I can judge, that the chances of its success are not such as to make it expedient to attempt it." Nevertheless, Burnside was given the approval to proceed. ⁷⁵

Personality conflicts and previous failures by Burnside were not the only factors that fed Meade and Duane's doubts about the plan. Mine shafts were not a foreign concept to Civil War soldiers, but in order to keep them adequately ventilated, they had to be shorter than 400 feet. In order to reach the Confederate lines however, Pleasants' proposed mine would need to be at least 450 feet long. Neither Meade nor Duane believed that an excavated mine could be effectively ventilated at the proposed distance.

Construction of the mine began on June 25, and by July 17 the miners had excavated 510.8 feet and reached beneath the Confederate lines. Reached beneath the Confederate lines. Pleasants overcame the problem of ventilation by having a square wooden duct built in tandem with the mine shaft. At approximately every 100 feet in the mine, a shaft would be dug straight up from the duct to the surface. At this point a fire would be lit. The fire

would draw in oxygen, which was sucked down the shaft and throughout the mine, providing the miners with fresh air.

With the main shaft completed, the miners began construction of lateral galleries, where the gunpowder would be placed. On July 22 the left gallery, measuring thirty-seven feet in length, was finished. The following day the right gallery, measuring thirty-eight feet in length, was completed. On July 27, the soldiers placed 8,000 pounds of gunpowder in the galleries.

While the Pennsylvania miners were digging the tunnel, Burnside planned an infantry assault to exploit the expected gap in the Confederate line of works. Burnside's 9th Corps consisted of four divisions, three of which had been heavily engaged in constant combat. His plans called for using his freshest division. The fourth division, composed entirely of black troops, or United States Colored Troops (U.S.C.T.), and commanded by Brigadier General Edward Ferrero, was relatively fresh, having been engaged in little action. Burnside selected it to lead the assault.⁸¹

Burnside realized that Ferrero's division had little experience in assaulting entrenched positions so he ordered it to thoroughly rehearse for the attack. One of Ferrero's soldiers recalled, "We had drilled certain movements, to be executed in gaining and occupying the crest." The common soldier had never before rehearsed for an offensive, and typically knew only the bare minimum regarding the objective of the assault. Burnside's insistence on pre-assault training of Ferrero's men, therefore, represented an important change in Civil War tactics, foreshadowing modern military practices.

The assault by Ferrero's USCT regiments was the cornerstone of Burnside's plan. However, just two days prior to the scheduled attack, on July 28, Meade visited Burnside's headquarters to inform him that the colored troops would not lead the attack. Burnside was upset and argued with Meade for utilization of the colored troops. Meade agreed to take Burnside's protest back to Grant. Hearing no word from Grant or Meade the following day, Burnside assumed that Grant had given approval for the use of the colored troops. On July 29, around noon, fifteen hours before the scheduled attack, Burnside held a meeting with his other three division commanders. During this meeting Burnside carefully explained their supporting roles for the assault. Shortly after beginning the meeting, Meade arrived with word that Grant had disapproved the use of Ferrero's men as the spearhead of the attack. Grant had two objections to the plan. First, the colored troops were inexperienced, and he believed that the attack demanded the best and most experienced soldiers. Second, and perhaps of more weight, Grant feared the potential political fallout if the attack failed and the black troops sustained heavy casualties. After the war, when Grant was questioned by the Committee on the Conduct of the War, he stated:

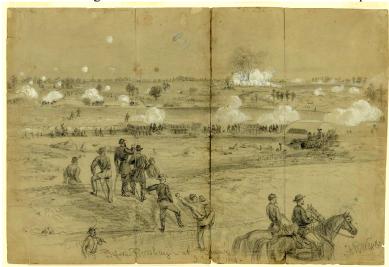
General Burnside wanted to put his colored division in front, and I believe if he had done so it would have been a success. Still I agreed with General Meade as to his objections to that plan. General Meade said that if we put the colored troops in front (we had only one division) and it should prove a failure, it would then be said, and very properly, that we were shoving these people ahead to get killed because we did not care anything about them. But that could not be said if we put white troops in front. ⁸⁶

Burnside's meticulous preparation of Ferrero's division as the main assault element in his attack had been derailed and he had a mere thirteen hours to revise his plan. One of the three white divisions, originally scheduled to provide Ferrero support, would now need to lead the attack. As minutes and hours ticked by, there was not enough time for them to have special training or "to be familiarized with the duties expected of them in connection with the assault."⁸⁷

Since none of his three other division commanders volunteered to lead the assault, Burnside, in a poor example of military generalship, ordered them to draw straws to see which would have the "honor" of leading the attack. General James Ledlie, the poorest officer of the lot, drew the shortest straw. ⁸⁸ Lacking the specialized training that Ferrero's men had received, Ledlie was simply ordered to maneuver around the blast in the Confederate lines and then concentrate his force on Cemetery Hill, several hundred yards beyond the Confederate salient. Burnside's three white divisions were to surround the

Confederates, and Ferrero's men would move through the gap they created, rush into Petersburg and capture the city. 89

On July 30, exactly one week after its completion, the mine was set to explode. At 3:15 A.M., Pleasants entered the mine, carefully lit the fuses, and waited for the explosion. Pleasants waited. Burnside waited. Meade waited. Grant waited. The soldiers assigned to make the attack waited. "Four o'clock arrived, officers and men began to get nervous, having been on their feet four hours; still the mine had not exploded." At 4:15 A.M., Pleasants ordered an officer and sergeant of the 48th Pennsylvania to enter the mine to determine the problem. Cautiously entering the mine, the two soldiers found that the fuse was no longer lit. The soldiers then relit the fuse and quickly exited the mine.



The mine explosion. A sketch by Alfred Waud. LC

The Confederates, previously resting peacefully, were jarred awake when the massive charge of black powder ignited beneath them. Hundreds of soldiers and their equipment were catapulted into the air. A Union soldier remembered the scene: "Looking to the front, timbers, sticks, and debris of all kinds were seen in the air, accompanied by a vast mass of dust and earth, followed by the white smoke from the powder, which rolled out in immense volumes hiding the dust and everything alike.",93 The explosion created a

"mushroom-shaped" column of dense smoke. 94 Debris, including wood, metal, and men, rained for a full five minutes after the explosion. The explosion had created a blast in the Confederate

line, forever known as the Crater, that was 200 feet long, 50 feet wide, and 25 feet deep. 95

The explosion created a gap in the Confederate lines 400 to 500 yards wide. The Confederate soldiers were so stunned by the blast, that for thirty minutes their lines remained silent. Pleasants recalled that "The rebels in the forts, both on the right and left of the explosion, left their works, and for over an hour not a shot was fired by their artillery. There was no fire from infantry from the front for at least half an hour; none from the left for twenty minutes, and but few shots from the right." Petersburg was open for the Union taking.

While the explosion stunned the Confederates, it also surprised the Union forces designated to make the assault. Ledlie's men fled to the rear of the Union lines in terror after witnessing the explosion. Within five minutes, after the debris stopped falling, Ledlie was able to reorganize his command and order them to assault the Confederate lines. A Union soldier remembered the spectacle: "A few minutes elapsed, when the troops of Ledlie's division advanced with a cheer and rushed up the sides *and into* the hole made by the explosion." Upon reaching the Crater, the Union forces, instead of fanning out and approaching Cemetery Hill, stopped to admire the devastation. Union soldiers were appalled: "An enormous hole... filled with dust, great blocks of clay, guns, broken carriages, projecting timbers, and men buried in various ways – some up to their necks, others to their waists, and some with only their feet and legs protruding from the earth." ¹⁰⁰

In less than one hour after the explosion, the scene in the Crater was chaos and confusion. ¹⁰¹ Union commanders were unable to reform their men, who had proceeded *into* the Crater and not around it as planned, as, "It was utterly impracticable to reform a brigade in that crater as it would be to marshal bees into line after upsetting the hive." ¹⁰² At 5:40 A.M. (nearly one hour after the explosion), Burnside was

informed that his men were, "halting at the works where the mine exploded" and had orders from Grant for his line to "be pushed forward to the crest at once." 103

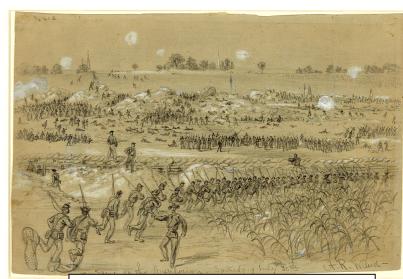
To add more confusion to the debacle in the Crater, at 7:30 A.M. Ferrero's division was sent forward. Ordering more reinforcements into the Crater magnified the chaos and confusion. A Union soldier later wrote: "Here in the crater, was a confused mob of men continually increasing by fresh arrivals." When the colored troops encountered the Confederates, some of the fiercest and most brutal fighting of the Civil War resulted. A Confederate soldier recalled the cruelty of the conflict: "Our men would drive the bayonet into one man, pull it out, turn the butt and knock the brains out of another, and so on until the ditch ran with blood of the dead and dying." ¹⁰⁵

The colored troops encountered Brigadier General William Mahone's division, who successfully formed a counterattack. Mahone ordered his men not to take any prisoners and to fight to the death. By mid-morning, the Virginians had completely repulsed the Union advance and "captured 12 stands of colors, 74 officers, including a brigadier general and his staff, and 855 enlisted men." The scene in the Crater was horrendous:

The sun was pouring its fiercest heat down upon us and our suffering wounded. No air was stirring within the crater. It was a sickening sight: men were dead and dying all around us; blood was streaming down the sides of the crater to the bottom, where it gathered in pools for a time before being absorbed by the hard red clay. ¹⁰⁸

By late morning, Union commanders acknowledged that the plan to capture Petersburg had failed. At 9:30 A.M., Burnside received orders: "The result of your attack has been a repulse, and directs that, if in your judgment nothing further can be effected, you withdraw to your own line, taking every precaution to get the men back safely." And with those words, the four-hour battle for the Crater was over, resulting in a devastating failure for the Union army. Burnside reported losses of more than 4,500 men from the 9th Corps. 110 Grant

somberly remarked: "It was the saddest affair I have witnessed in the war. Such opportunity for carrying fortifications I have never seen and do not expect again to have."



Waud's sketch of the 9th Corps assault into the crater. LC

The days following July 30 witnessed much finger pointing and accusations. Grant aptly summarized the events at the Crater: "The effort was a stupendous failure." Both Grant and Meade were quick to use Burnside as the scapegoat for the disaster. Meade, in a letter to his wife, stated: "The affair was very badly managed by Burnside, and has produced a great deal of irritation and bad feeling, and I have applied to relieve him." Later in the letter Meade vehemently stated, "Either he or I has got to go." Much to Meade's delight, Burnside left the Army of the Potomac nearly two weeks later, never to return. Grant, too, was quick to sacrifice Burnside. He stated: "It cost us about four thousand men, mostly, however, captured; and all due to inefficiency on the part of the corps commander and the incompetence of the division commander who was sent to lead the assault." Yet neither Meade nor Grant found reasons to question their own shortcomings as commanders. Burnside *had* developed an

innovative tactical plan for the frontal assault. He selected the best-suited division and saw that it received thorough training for its mission. The decision by Meade and Grant to remove Ferrero's men as the lead element in the assault less than 24 hours before the attack greatly upset Burnside's plans. Although Burnside's method of selecting a replacement division for Ferrero was appallingly bad and contributed to the failure of the assault, Grant and Meade bear a share of the responsibility for their last minute intervention into the attack's order of battle. 116

The outcome of the Crater may have been the "saddest affair" witnessed during the war, but the original plan to employ infantry who had trained for and rehearsed for the assault marked a significant advancement in Civil War tactics, and a departure from the linear assaults such as Malvern Hill or Pickett's Charge.

What Tactical Lessons Were Learned During the Civil War?

By examining Civil War offensives, and specifically frontal assaults, on a linear continuum, a clear progression in tactics can be seen. Tactics progressed considerably from the early assaults of 1861 to the complex offensives such as that undertaken at the Crater in 1864. Many commanders, Lee and Grant included, remained wedded to frontal assaults, but also eventually recognized that tactics must adapt, or evolve, as the nature of warfare advanced. Placed in a broader study, Pickett's Charge stands as an exception in the evolution of Civil War assaults. By the mid-point of the war, when Pickett's Charge took place, linear assault formations were proving ineffective and costly in manpower, and other forms of tactical offensives, mainly column assaults, were becoming more common.

This holds true both in the Eastern theater, on which this essay has focused, and in the Western theater as well. In February 1862, U.S. Grant's Federal forces and accompanying navy surrounded the Confederate Fort Donelson. Brigadier General Gideon Pillow ordered an offensive on Grant's position in hopes of breaking the Union stronghold. Brigadier General Bushrod Johnson's division was selected to lead the frontal assault, arranged column-style, six files deep. One Confederate soldier remembered that the assault was suited for street fighting and that Johnson's troops stream-rolled the federal position. Though the column-style assault enabled the Confederates to pierce the Union line, they were unable to successfully switch their line to a linear formation to exploit their breakthrough and maximize their firepower. Johnson's counter-attack showed early that column-style assaults could be successful in breaking the enemy position, but that the formation hindered firepower.

Union General C. F. Smith led the final offensive on Fort Donelson. Smith, not wanting his attack to be slowed down, ordered his men to advance with caps off and bayonets fixed. Smith's assault was successful; the Federal soldiers cracked the Confederate position without firing a shot.

Column-style assaults also occurred at Chickamauga and on several occasions during the campaign to Atlanta. At Chickamauga, on September 19 and 20, 1863, General John B. Hood launched a column-style assault that smashed the Union center. 117

Essentially, column-style assaults often proved successful in breaking the enemy position – but typically the assaulters were unable to hold the position because of decreased firepower created by the troops' column formation. Nevertheless, more narrow assault columns rather than long linear formations, seemed to be the lesson learned during the war.

After the War: Colonel Emory Upton

Arguably the most astute observer of the necessity of changing tactics was Colonel Emory Upton. A proponent of the column-style assault as practiced at the Mule Shoe at Spotsylvania, Upton became the leading tactician in the U.S. Army in the wake of the Civil War. Following the war, Upton served at West Point and traveled to Europe and Asia to observe foreign militaries. When Upton returned to the States he authored *The Armies of Europe and Asia*, which advocated a more stringent professionalism in the U.S. military. Eager to reform the American military system, Upton tirelessly labored over a tactical manual meant to address the lessons learned from the Civil War. Upton's manual, *The Military Policy of*

the United States, published posthumously, was the first distinctly American tactical manual. No longer content to mimic European tactics or to translate European tactical manuals, Upton urged the creation of a distinctly American military system and profession. His manual, informed by first-hand lessons in the Civil War, advocated light column formations, not close-order linear formations. Recognizing that improvements in weaponry surpassed close-order formations, Upton also introduced the platoon, section, and squad-level groupings.

The military science of tactics evolved during the American Civil War. Civil War commanders, such as General Grant, had set out espousing uncomplicated notions of strategy: "The art of war is simple enough. Find out where your enemy is. Get at him as soon as you can. Strike him as hard as you can and as often as you can, and keep moving on." Unfortunately for the three million participants and 620,000 soldiers who died, the tactics of achieving strategic aims were not that simple.

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² James McPherson, *Battle Cry of Freedom* (New York: Ballantine Books, 1988), 854. Of the 620,000 deaths, approximately 360,000 were Union soldiers and approximately 260,000 Confederate soldiers.

¹ For further information on First Manassas see: John Hennessy, *The First Battle of Manassas: An End To Innocence, July 18-21, 1861* (Lynchburg, Va.: H. E. Howard, 1989) and Ethan Rafuse, *A Single Grand Victory: The First Campaign and Battle of Manassas* (Wilmington, Del.: Scholarly Resources, 2002).

³ Mark Grimsley, "American Military Policy, 1783-1860: The Beginnings of Professionalism" in *American Military History and the Evolution of Warfare in the Western World* (Lexington, Ky.: D.C. Heath and Company, 1996), 95-6. Because the "Minié ball" was hollow on one end, when it was loaded into the barrel and fired, the accompanying black powder expanded the hollow end, thus creating the spinning movement of the bullet.

⁴ Grady McWhiney and Perry D. Jamieson, *Attack and Die: Civil War Military Tactics and Southern Heritage* (Tuscaloosa, Ala.: University of Alabama Press, 1982), 50. The new military manual that was produced as a result of the integration of the rifled musket was William J. Hardee's *Rifle and Light Infantry Tactics*. Hardee's manual retained the standard "direct step," "common time," and "quick time." However, the new manual introduced the "double quick time" and the "run" as additional standard step rates. Apparently, Hardee believed that the attacking soldiers would have to advance at a quicker rate in order to offset the increased firing range.

⁵ Paddy Griffith, *Battle Tactics of the Civil War* (New Haven: Yale University Press, 1987); Edward Hagerman, *The American Civil War and the Origins of Modern Warfare, Ideas, Organization, and Field Command.* (Bloomington: Indiana University Press, 1992). Hagerman is writing in direct response to Griffith's work, and these two selections, to date, offer the best arguments and counterarguments on the nature of the Civil War.

⁶ Earl J. Hess, *Field Armies and Fortifications in the Civil War: the Eastern Campaigns, 1861-1864* (Chapel Hill: University of North Carolina Press, 2005), 312. Hess's second work in the trench warfare series was recently published as *Trench Warfare Under Grant and Lee: Field Fortifications in the Overland Campaign* (Chapel Hill: University of North Carolina Press, 2007).

⁷ For more thorough information on the Peninsula campaign, see Stephen W. Sears, *To The Gates of Richmond: The Peninsula Campaign* (Boston: Houghton Mifflin Company, 1992).

⁸ Sears, 319-321.

⁹ Quoted in Sears, 323.

¹⁰ Sears, 334-335.

¹¹ U.S. War Department, *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies* (Washington, D.C.: Government Printing Office, 1880-1901), Series 1, 27(3):868. [Hereafter cited as *OR*.]

cited as *OR*.]

12 Wright's assault at the center of the Union line came as a result of Lee's offensive plan on July 2. Confederates progressively attacked up the Union line (beginning at Little Round Top/ Devil's Den, to the Wheatfield, Peach Orchard, and eventually to the center of the Union line). This type of phased, or wave, assault is called an *en echelon* assault.

¹³ General E. P. Alexander, *Military Memoirs of a Confederate* (Dayton, Oh.: Morningside Bookshop, 1977), 421-2. ¹⁴ OR, Series 1, 27(2):320.

¹⁵ Ibid

¹⁶ Stuart's calvary command, criticized for its role in the battle, arrived at Gettysburg on the afternoon of July 2.

¹⁷ Harry Pfanz, *Gettysburg* (n.c.: Eastern National, 2006), 44-45.

¹⁸ OR, Series 1, 27 (2):697.

¹⁹ James Longstreet, *From Manassas to Appomattox*, (New York: J.B. Lippincott, 1994), 390.

²⁰ Pfanz, 45. The first shots were fired from the Confederate guns in the Peach Orchard and landed near the Copse of Trees in the Angle (the geographical landmark upon which the Confederates were to converge their assault). ²¹ Douglas Southall Freeman, ed. *Lee's Dispatches: Unpublished Letters of General Robert E. Lee, C.S.A. to*

²¹ Douglas Southall Freeman, ed. Lee's Dispatches: Unpublished Letters of General Robert E. Lee, C.S.A. to Jefferson Davis and the War Department of the Confederate States of America 1862-65 (Baton Rouge: Louisiana State University Press, 1994), 110.

State University Press, 1994), 110.

²² As noted there is not a consensus as to why soldiers constructed such extensive fortifications. Most recently Earl Hess argues that the rifle did not cause soldiers to dig in; instead trenches developed due to the constant contact between the Army of the Potomac and the Army of Northern Virginia in the Overland campaign. [reference needed]

²³ McWhinev and Jamieson, 91.

²⁵ McWhiney and Jamieson, 89.

²⁹ Ibid.

³⁰ OR, Series 1, 36(2):603.

31 Rhea, 165. Meade placed Mott temporarily under the command of the 6th Corps commander, General Wright, to ensure effective communication between the two attacking elements, but the exact role of Mott's men remained undefined. Meade's orders indicated that Mott could connect with Major General Ambrose E. Burnside, commander of the 9th Corps, attacking of the far right of the Confederate line, or mass his men and reinforce Upton. Though Meade issued several orders to Mott, none clearly stipulated his role in providing support to Upton. Mott's orders from Wright conflicted with Meade's earlier orders, in ordering Mott to support Upton. A few hours before the attack was to begin, Mott had not received a clear, consistent order. Adding to the confusion over the role Mott's men were to play was the positioning of these reinforcements. Initially Mott was located behind the left flank of the 6th Corps, nearly one mile from the north side of the salient, not positioned directly next to, or anywhere near, the main assault.

³² OR, Series 1, 36(2):603.

Rhea, 167. Mott's men, earmarked as reinforcements, actually made then the first assault on the Confederate line. After the failed attack several Union leaders, including General Grant, blamed Mott for the failure. Criticism against Mott seems unfair, based on the conflicting and inconsistent orders he received prior to the assault. ³⁴ OR, Series 1, 36(1):668.

35 Ibid.

³⁶ U.S. Grant, *Personal Memoirs of U.S. Grant*, ed. E.B. Long (Cambridge: Da Capo Press, 2001), 418.

³⁷ Gordon, 272.

³⁸ Edward Porter Alexander, Fighting for the Confederacy: The Personal Recollections of General Edward Porter Alexander, ed. Gary W. Gallagher (Chapel Hill: The University of North Carolina Press. 1989). 375. Reinforcements came from Warran's 5th Corps, Wright's 6th Corps, and Burnside's 9th Corps.

³⁹ I. G. Bradwell, "Spotsylvania, May 12, 13, 1864," Confederate Veteran, 28:102.

⁴⁰David H. Jordan, Winfield Scott Hancock: A Soldier's Life (Bloomington and Indianapolis: Indiana University Press, 1988):129.

⁴¹ OR. Series 1, 36(2):656.

⁴² Grant, 421.

⁴³ Bradwell, 102.

⁴⁴ Rhea, 242.

⁴⁵ Grant, 421.

⁴⁶ John B. Gordon, *Reminiscences of the Civil War* (Dayton, Oh: Morningside Bookshop, 1981), 278.

⁴⁷ OR, Series 1, 36(2):657.

⁴⁸ Grant, 422.

⁵⁰ OR, Series 1, 36(2):657.

²⁴ McWhiney and Jamieson, 81. This is one of the best secondary sources on Civil War tactics and the strategies behind offensive assaults. The authors carefully explain the impact of the rifle on the army and the failure to fully understand and appreciate this modern weapon. The authors admirably incorporate prominent military theorists (Jomini and Clausewitz) and attempt to explain how military theories related to frontal assaults. To a lesser extent, McWhiney and Jamieson explore the evolution of frontal assaults and place a significant amount of emphasis on the evolutionary method behind Colonel Upton's assault at the Mule Shoe. However, the larger theme of this work is an attempt to understand why and how the South lost, which directly relates to its persistence in launching frontal assaults. Ultimately, the authors conclude that because of the Southerners' Celtic heritage, they favored the offensive to the defensive, and literally bled their armies to death.

²⁶ "Common time" is ninety steps per minute.

²⁷ Gordon C. Rhea, The Battles for Spotsylvania Court House and the Road to Yellow Tavern, May 7-12,1864 (Baton Rouge: Louisiana State University Press, 1997), 163. ²⁸ OR, Series 1, 36(1):667.

⁴⁹ Horace Porter, "Campaigning With Grant" (excerpted). The Blue and the Gray: The Story of the Civil War as Told By Participants: Volume II: The Battle of Gettysburg to Appomattox (New York: Meridan Books, 1994), 387. The Blue and the Gray accounts are simply excerpts from published memoirs. For Porter's full account, see his memoir, Campaigning With Grant (Bloomington: Indiana University Press, 1961).

⁵¹ Porter, "Campaigning With Grant," 387.

⁵² Gordon, 278.

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<sup>53</sup> Bradwell, 103.
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⁵⁴ Gordon, 272.

⁵⁵ Rhea, 259.

⁵⁶ Bradwell, 103.

⁵⁷ Alexander, 378.

⁵⁸ Rhea, 311.

⁵⁹ Rhea, 311. Reinforcement casualties included 2,534 in the 9th Corps and nearly 1,000 in Wright's 6th Corps.

⁶⁰ OR, Series 1, 36(1):3.

⁶¹ McPherson, 737.

Edward Hagerman, The American Civil War and The Origins of Modern Warfare, Ideas, Organization, and Field Command (Bloomington: Indiana University Press, 1992), 266; Gordon Rhea, Cold Harbor (Baton Rouge, LA: Louisiana State Univ. Press, 2002), 14, 16.
 In 1864, Petersburg had a population of 18,000. Located on the southern bank of the Appomattox River,

⁶³ In 1864, Petersburg had a population of 18,000. Located on the southern bank of the Appomattox River, Petersburg was connected by rail and waterway to the James River, Chesapeake Bay, and Atlantic Ocean. Additionally, five railroads converged at Petersburg. Because of its important location, Petersburg represented the last substantial supply depot for Lee's Army of Northern Virginia. ⁶³

⁶⁴ McPherson, 740. Lt. General Beauregard commanded men from the Department of North Carolina and Southern Virginia. This army consisted of two divisions: the first division commanded by Major General Bushrod Johnson, the second division commanded by Major General Robert Hoke. These men were *not* part of General Lee's Army of Northern Virginia.

⁶⁵ These troops belonged to General William "Baldy" Smith's 18th Corps. This corps was recently "borrowed" from General Benjamin Butler's Army of the James two weeks earlier to assist Union efforts in the assault at Cold Harbor.

⁶⁶ Constructions of the trenches were supervised by Captain Charles Dimmock. When completed the Confederates had constructed a ten-mile arch, anchored on the Appomattox River, consisting of 55 batteries.

 ⁶⁷ Grant, 462.
 ⁶⁸ Alexander, 561. A salient is a natural weak point in the line because it is exposed, advanced slightly ahead of the rest of the line. This would enable the attacking enemy to assault from three fronts (left, center, and right). This

portion of the line was called Elliot's Salient, for the commanding forces in the area.

69 Robert W. Barnwell, "A View on the Crater Battle," *Confederate Veteran*, 15 (1907): 176.

⁷⁰ Porter, 228.

⁷¹ The 48th Pennsylvania was of the 1st Brigade, 2nd Division (commanded by Potter, of the 9th Corps, commanded by Burnside).

⁷² McPherson, 758.

⁷³ OR, Series 1, 40(2):396-97.

⁷⁴ Ibid. Burnside was appointed commander of the 9th Corps in the spring of 1864. Meade was less than enthusiastic about the appointment and would be short tempered with him throughout the entire campaign.

⁷⁵ OR, Series 1, 40(1):131.

⁷⁶ McPherson, 758.

⁷⁷ OR, Series 1, 40(2):314.

⁷⁸ OR, Series 1, 40(1):557. Pleasants calculated that his men would have to mine approximately 510 feet to get beneath the Confederate position.

⁷⁹ OR, Series 1, 40(1):557.

⁸⁰William H. Powell, "The Battle of the Crater," in *Battles and Leaders of the Civil War*, ed. Ned Bradford (New York: Penguin Books, 1989), 562.

⁸¹ McPherson, 759. The first division was commanded by Brigadier General James H. Ledlie, the second led by Brigadier General Robert B. Potter, the third led by Brigadier General Orlando B. Willcox, and the fourth commanded by Brigadier General Edward Ferrero.

⁸² Ibid., 574.

⁸³ Michael A. Cavanaugh and William Marvel. *The Petersburg Campaign: The Battle of the Crater "The Horrid Pit" June 25- August 6, 1864.* (Lynchburg, Va.: H. E. Howard, Inc. 1989), 20.

⁸⁴ Cavanaugh and Marvel, 21.

⁸⁵ There is some speculation over whether Grant considered this concern when approached by Meade with Burnside's plan. It is likely that it was Meade's belief and that he used it to argue against Burnside's plan. ⁸⁶ Powell, 561.

⁸⁷ Ibid., 563. Union forces did not consider postponing the assault for fear that the mine might be discovered by the

⁸⁸ Ledlie, like Burnside, had also developed a poor reputation. Not only was Ledlie considered a drunk, but he had also earned a reputation as an incompetent general. On June 17, during the initial thrust toward Petersburg, Ledlie commanded a failed assault against the Confederate entrenchments. After the attack, many of the men in Ledlie's command blamed his poor leadership as the key factor to their repulse. It is possible that Burnside was unaware of the controversy over Ledlie's leadership, or he may have ordered another division to make the assault.

⁸⁹ Cavanaugh and Marvel, 23.

⁹⁰ OR, Series 1, 40(1):556-57.

⁹¹ Powell, 563.

⁹² OR, Series 1, 40(1):556-57.

⁹³ Stephen M. Weid, "The Petersburg Mine," in Papers of the Military Historical Society of Massachusetts (Wilmington, Del.: Broadfoot Publishing Company), 5:208.

94 John Gibbon, *Personal Recollections of the Civil War* (Dayton, Oh.: Morningside Bookshop, 1978), 253.

⁹⁵ OR, Series 1, 40(1):558.

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ McPherson, 759.

⁹⁹ Porter, 230.

¹⁰⁰ Powell, 564.

Some of this confusion could have been avoided if Ledlie's men had advanced *immediately* after the explosion, as planned. As noted, Ledlie's men instead fled to the rear and had to be reorganized. For nearly thirty minutes the Confederate line was stunned and in chaos; it was at this point that the assault should have occurred. The Union forces failed to fully achieve the element of surprise.

¹⁰² Powell, 566.

¹⁰³ *OR*, Series 1, 40(1):140.

¹⁰⁴ Weid, 209.

¹⁰⁵ William H. Etheredge, "Another Story of the Crater Battle," in *Southern Historical Society Papers*, 37 (1909):

¹⁰⁶ Philip Asher, "Wilcox's Alabamians in Virginia," *Confederate Veteran*, 15 (1907): 490.

¹⁰⁷ OR, Series 1, 40(1):753. Brigadier General William F. Bartlett.

¹⁰⁸ Charles H. Houghton, "In The Crater," in Bradford, *Battles and Leaders*, 4:562.

¹⁰⁹ OR, Series 1, 40(1):144.

¹¹⁰ Ibid.,146.

¹¹¹ Ibid., 17.

¹¹² Grant, 468.

¹¹³ George Gordon Meade, The Life and Letters of George Gordon Meade, Major General United States Army (New York: Charles Scribner's Sons, 1913), 217.

¹¹⁴ Gibbon, 254.
115 Grant, 468.

¹¹⁶ Burnside would resign from the military on April 15, 1865. At the end of the war a Senate committee was established to investigate several military blunders that had occurred during the war, and the debacle at the Crater was one event that was investigated. When asked at the Testimony before the Joint Committee on the Conduct of the War, Meade explained that the USCT unit was not used because it had never before been under fire.

¹¹⁷ For additional reading on Fort Donelson and Fort Henry see Benjamin Cooling, Forts Henry and Donelson: The Key to the Confederate Heartland (Knoxville: University of Tennessee Press, 1987). For additional reading on Chickamauga see Steven E. Woodworth, Six Armies in Tennessee: The Chickamauga and Chattanooga Campaigns (Lincoln: University of Nebraska Press, 1997) and Peter Cozzens, This Terrible Sound: The Battle of Chickamauga (Urbana: University of Illinois Press, 1992).

118 U.S. Grant, *Personal Memoirs of U.S. Grant*, ed. E.B. Long (Cambridge: Da Capo Press, 1982), xvi.